

REMARKS

Claims 1-18, 20-23, and 28-30 are pending in the present application and have been rejected. Claims 1, 4, 5, 8, 12, 18, 20 and 21 have been amended herein. Applicant respectfully requests reconsideration of the claims in view of the following remarks.

Dependent claims 20 and 21 were objected to for further limiting features not included in the independent claim 18 from which it depends. However, claim 20 has been amended to cite these features, and claim 21 has been amended to depend from claim 20 rather than claim 18.

Claims 1-3, 18, 20-23, 29 and 30 were rejected under 35 U.S.C. §112, first paragraph. In this rejection, the Examiner did not find support for the amendment to the independent claims of positioning the long axis of the elliptical energy beam at both a first angular position and a second angular position. The Examiner also did not find support for the limitation included in the new claims 29 and 30.

With respect to the limitation of positioning the long axis of the energy beam at both a first angular position and a second angular position, the Examiner is referred generally to page 10, line 1 through line 22, along with Figures 4 and 6 of the application. More specifically, Figure 4 illustrates two different angular positions of the elliptical energy beam 350. The first position of the energy beam is at the bottom of Figure 4 and has a horizontal long axis. The second angular position shown at the upper right hand corner of Figure 4 has the long axis of the energy beam at approximately a 45° angle from the first position. Further, at lines 10 and 11 on page 10, the specification teaches that "the elliptical beam 350 may be placed at an angle" and at page 7, line 20, the specification incorporates U.S. Patent 6,214,496 by reference. At column 4,

lines 34 and 35, U.S. Patent 6,214,496 teaches "Mask 102 is manipulated by translating and rotating stage 106...".

Therefore, according to the present invention, after removing "excess material 344 to form the desired oval or elliptical shape 340 on the mask 316 as shown in Figure 4," with "an edge along the long axis B of the beam 350" (page 10, lines 6-9), "the elliptical beam 350 may be placed at an angle, using a portion of both the long axis B beam edge and a portion of the short axis A beam edge to shape and smooth rounded features on mask 316."

In addition, Figure 6 and the corresponding discussion of Figure 6 (page 10, lines 15-22), makes it clear that the energy beam and the mask are continuously rotated with respect to each other to change the angular position between the two. This is necessary if "an edge along the long axis B of beam 450 is [to be] used to smooth the edges of the circular shape 440" shown in Figure 6.

Thus, it is respectfully submitted that the specification and Figures 4 and 6 do support the claim limitations of a first angular position and a second angular position and that independent claims 1 and 18 and all of the claims that depend therefrom are now allowable.

With respect to the relative movement limitation of claims 29 and 30, all of the above arguments are also applicable to this rejection, and it is again noted that U.S. Patent 6,214,496 was incorporated by reference, and that the present invention teaches improved and inventive methods of using the prior art system of Figure 1 of the present application.

Therefore, at page 2, lines 26-34, the specification of the present application describes a "fabrication system 100...shown that includes a stage 114 for positioning a mask or reticle 116," and "the mask 116 is preferably guided by a positioner or stage 114 according to a computer-generated image of the pattern to be written on the mask 116." Also, see page 3, lines 5-8, and

lines 19-25. Thus, it is clear that mask 116 is translated and/or rotated with respect to the laser beam. Further, column 4, lines 49-53 of U.S. Patent 6,214,496 that was incorporated by reference clearly states, "In addition, other embodiments of the present invention may maintain mask 102 stationary while manipulating source 110 by, for example, using mirrors or other suitable devices to deflect and control beam 112 position relative to mask 102" (emphasis added). It should also be noted that Figure 1 of the present application is substantially the same as Figure 3 of the 6,214,496 patent except for using different reference numbers.

Therefore, it is respectfully submitted that the election beam of the present invention may move with respect to the stage holding the mask or vice versa as is claimed by claims 29 and 30 and that these claims are allowable.

Claims 4-17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Umeki (U.S. Patent 5,830,605) in view of Kimura (U.S. Patent 4,692,583) and Yabu (U.S. Patent 4,907,021). However, the independent claims 4 and 12 have been amended to also include the limitation that the beam must be positioned or rotated to at least two different angular positions in a manner similar to independent claims 1 and 18. Therefore, since none of the references even suggest much less teach these added limitations, it is submitted that claims 4-17 are also allowable.

In conclusion, in view of the above, Applicant respectfully requests that the Examiner allow Claims 1-18, 20-23, and 28-30 and pass the present patent application to issuance. If the

Examiner has any questions, Applicant invites the Examiner to contact Applicant's attorney at the phone number below. No fee is believed due in connection with this filing. However, should one be deemed due, please charge Deposit Account No. 50-1065.

Respectfully submitted,

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